

EVALUATION OF SAMANVIT GRAM VANIKARAN SAMRIDHI YOJANA (SGVSY) UNDERTAKEN BY D.F.D.A., AGRA, UTTAR PRADESH

382



Successful Afforestation in Village Bateshwar

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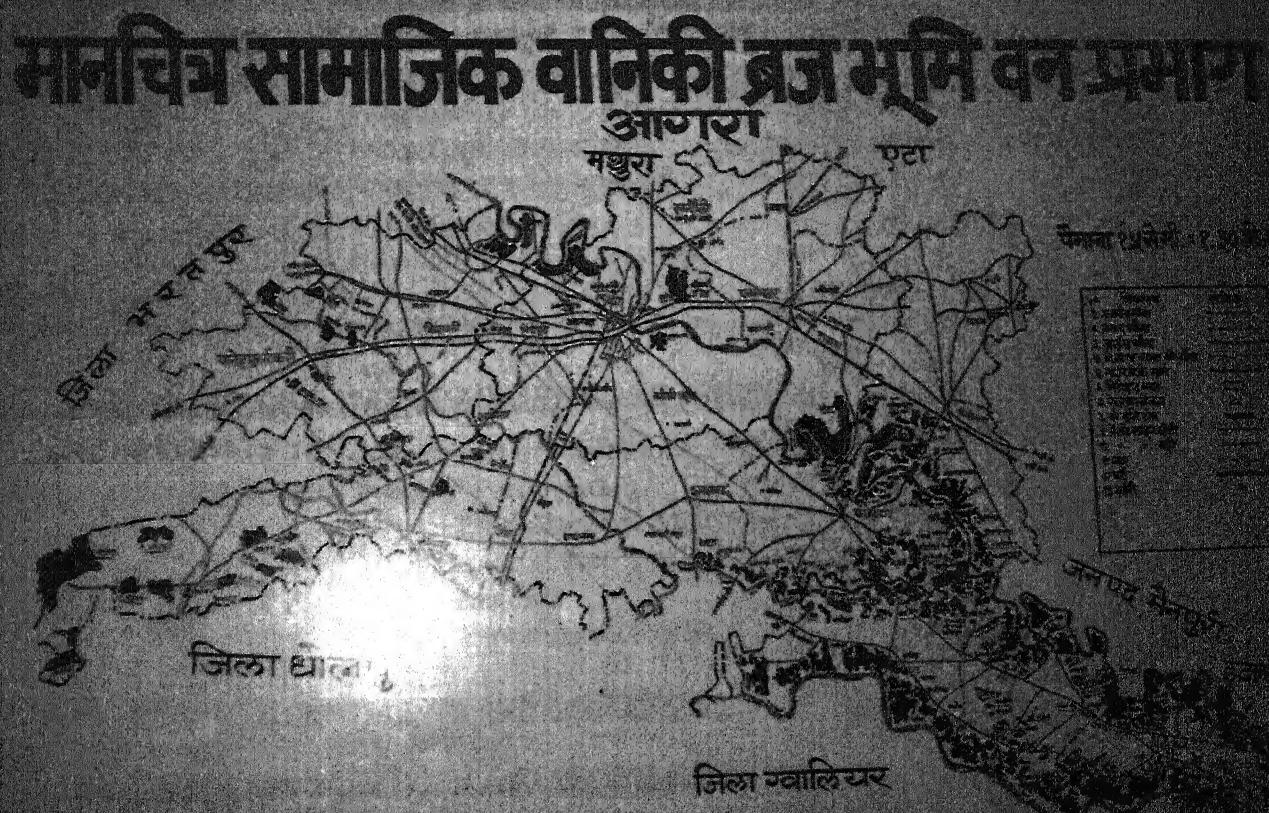
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SOCIAL FORESTRY AREA IN DISTRICT AGRA



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EXECUTIVE SUMMARY AND GRADING OF THE PROJECT FOREST DEVELOPMENT AGENCY (FDA), AGRA

GRADING OF PROJECT ON SCALE OF 01 TO 10

Quantitative Aspects	Physical	10.0
	Financial	10.0
Qualitative Aspects	Survival	9.0
	Health of Plantation	7.5
	Maintenance	8.5
	Sustainability	8.0
JFM	Degree of People's Participation	9.0
	Satisfaction over Perceived Benefits by the Local Population	8.5
FDA	Composition of General and Executive Bodies of the FDA	8.5
	Role of FDA in Administrative, Supervisory and Monitoring Mechanism of the Project	8.5
Mechanism	Flow of Funds from FDA to VFCs	10.0
	Planning, Implementation and Maintenance of Assets Directly by VFCs/EDCs	8.5
	Measures Taken for the Capacity Building of VFCs/EDCs	8.5

	Outstanding (8-10)	Very Good (5-8)	Good (3-5)	Poor (<3)
Overall Grading of the Project	8.75	—	—	—

EVALUATION MEETING IN VILLAGE PARNA



EXECUTIVE SUMMARY

Ministry of Environment and Forestry, Government of India during Tenth Five Year Plan introduced the National Afforestation Programme with the view to empower Village Communities, which are poor. It was managed by Forest Development Agency at the Forest Division, Agra and implemented by the Joint Forest Management Committee at the village level. A brief findings of the evaluation is as stated below.

PROFILE OF PROJECT AREA

- Agra forest division, which covers the entire district of Agra. Total geographical area of the division is 4027 sq.km. and about 341.92 sq.km. or 8.49 per cent of its total area belongs to forest land.
- Forest area of the division is spread mainly along the catchments of rivers Chambal, Yamuna and Utangan. Ravines are the main features in the area. Erosion is the main problem of the ravines and as a result lack of moisture and fertility is seen in these areas. Prosopis juliflora is the dominant specy of the ravines and also Shisham, Papri and Ailanthus are also found at some places. South-western part of the division is covered by Aravali hills. This area is facing problem of rocky structure of the soils. Moisture regime is very poor and ground water is very deep. Exploitation of ground water is very difficult and quite expensive. These areas adjoin the Thar desert of Rajasthan and experience extreme climates. Forest cover comprises of mainly bushy and perennial shrubs. Trees have stunted growth. Main species are Reonge Kardhaie, Chheonkar, Papdi, Acacia and Prosopis Juliflora. Some areas are alkaline (Usar) in Kirawali, Khergarh and Etmadpur ranges of this division. Overall forests in Agra Forest Division are generally degraded and low in density.
- Comparatively Agra has dry and hot climate. Summer season is between March and June, when maximum temperature reaches upto 48°C. Rainy season is between July to September for only 32 to 53 days and only, meager rainfall 655 mm is recorded, however, these months are wet. Winter season is from November to January. Occasionally temperature goes down below freezing point in the month of January and it becomes fogy and harmful to vegetation.

- Majority of the population in the project area belongs to OBC with 46.11 per cent followed by general categories 39.60 per cent and then Scheduled Castes who are only 14.29 per cent. However, most of the beneficiaries of the project were SCs, women, landless labourers and other weaker sections of the society.

FINDINGS OF THE STUDY

- The reference period of this project was consecutive five years, i.e. 2002-03 to 2006-07.
- Total target area to be treated in the project was 1500 hectares and during 2006-07, it was fully achieved.
- The total cost was proposed Rs.320.53 lakh out of which Rs.310.00 lakh was received.
- Important species, which were sown or planted, were Babool, Juoli, Arru, Papdi, Sahjan, Shisham, Neem, Jatropho, etc.
- Out of 43 JFMCs in the project a sample of 5 JFMCs was drawn belonging to different years to assess the survival rate. The sampled JFMCs were Bateshwar (55 ha.), Balai (55 ha.), Parna (20 ha.), Silawli (25 ha.) and Sonikhera (100 ha.). The survival rate was assessed from the sampled JFMCs, which was found to be about 91 per cent. The average height of the plant species varied between 2 to 7 feet.
- Micro-plans of 43 villages were completed prior to the implementation of the project. The records were there with the office of DFO and its range offices. Micro-plans were prepared through the process of PRA. A lump-sum amount of Rs.6.30 lakh was spent in preparation of these micro-plans.
- Entry Point Activity was taken up carefully in 42 VFC villages by which villagers were quite happy and always ready to help and support the afforestation scheme.
- The VDF account is in the process of opening.
- In the process of monitoring CCF, CF and DCF/DFO were involved with varying frequency.
- Project was extremely successful due to maximum cooperation of villagers. The main reason of cooperation was that villagers are extremely poor and they are

aware that the deforested land is the main reason of their poverty. Also EPA and good behaviour of forest officials have motivated the villagers to cooperate in the project.

- The quality of land in the project area is poor and undulating. It is always erosion prone due to calcareous soil. Mostly degraded forest land was treated in the project.
- The quality of plantation was good in both natural and artificial regeneration, except growth rate of plant depended upon the soil moisture.
- Small and big check-dams were made before seedling and polybag plantation in all the JMFCs, which was satisfactory.
- As the project is only two to three years old and increase of bio-mass may take some more time to see good results of efforts made by forest officials and villagers.
- Slight change in the quality of life was observed as EPA provided the hand pumps and ponds, etc. Easily availability of drinking water for men and animal and in some villages was from ponds for irrigation has made the life easy.
- Project work has provided employment to village poors. In the first year 2003-04 85,028 mandays were generated followed by 96,241 mandays in 2004-05, 108,569 mandays in 2005-06 and 61,924 mandays in 2006-07 were generated. Overall 351,762 mandays were generated.
- Soil and moisture and climatic conditions were taken into consideration while selecting the plant species along with the local needs of population. Growth potential of individual species was also one of the deciding factors by the forest officials.
- Wherever it was possible, medicinal plant species were planted, but the main focus was in selecting those plant species, which can survive in harsh climate.
- Awareness and spirit of afforestation was quite high among the villagers which was the result of good interaction among forest officials and villagers. Also EPA was successfully implemented.
- Village Communities were fully involved in project planning, implementation, usufructs sharing and other mechanisms of the project.

- Despite of low wages and monthly payments, watchmen somehow are managing to protect the plants from grazing. Amount of wages and monthly payments has to be increased and also period of plant protection should also be increased.

CONSTRAINTS AND LIMITATIONS

- Biotic pressure in these areas is too much as unregulated grazing, regular requirement of fuel wood/timber wood and neel-gai menace is constant. Forest officials were facing difficulty in appointment of regular watchmen due to low payment allowance.
- Project could not be implemented in the first year 2002-03 due to delayed release of funds. The delay in release of fund occurred at both centre and state level. After first year the fund flow was good.

SUGGESTIONS AND RECOMMENDATIONS

- It was observed that afforestation scheme should be for 10 years, as the plant growth is slow due to dry conditions and constant vigil is necessary for plant protection. Extra funds are required for extended period.
- Amount of wages and monthly payment for watchmen must be increased.
- Religious institutions may also be entrusted to plant and protect the forest lands by involving the communities.
- It is suggested that this project of afforestation scheme should be extended in other adjoining areas to strengthen the meaningful forest cover. If little administrative and financial care is taken, Agra can become model for other districts.

CHAPTER I

PROJECT PROFILE AND PROPOSED ACTIVITIES

A.1.1 PROJECT TITLE

National Afforestation Programme (NAP): A Participatory Approach to Sustainable Development of Forests Through Forest Development Agency (FDA), Agra in Uttar Pradesh.

2. Project Implementing Agency

FDA	Agra
District	Agra
Forest Division	Agra
Forest Circle	Agra
State	Uttar Pradesh

3. Project Location

Sub-Watersheds	Yamuna and Chambal, etc.
Development Block	Jaitpur, Bah, Pinhat, Fatehabad, Bichpuri, Jagner and Khandoli.
Forest Ranges	Jaitpur, Bah, Pinhat, Fatehabad, Bainpur, Etmadpur, Khergarh and Kerawali
Villages Associated	Total 43 Villages (see in Table).

4. Project Cost, Duration and Area

Project Cost	Rs.310 lakh
Project Duration	2002-03 to 2006-07
Project Area	1500 Hectare

A.2 PROJECT PROPOSAL

1. Introduction

Agra forest division is in triangular shape, from East to West, it is about 150 kms. and North to South, it is about 50 kms. Most of its boundaries are common with Rajasthan and Madhya Pradesh, except river Yamuna in the north separates it from other districts of U.P. Agra forests are mixed forests, which are having direct impact of Thar

desert. Starting from ancient period, as the human encroachment increased and natural forests were consumed as a result the entire eco-system of the region was collapsed. It was already a low rainfall region along with dry Aravali ranges, which was further dried by hot winds from the adjoining desert. In such a harsh climate vegetational growth is too slow. Catchments areas of river Yamuna and Chambal are converted into ravines (Bihar), which are sometimes 50 to 100 feet deep. The calcareous soil of the region has further aggravated the erosion process, as when it receives even a little rain water it becomes too loose, during summer season it becomes too hard and cracks into dust. Concentration of population along with the domestic animals are already beyond the carrying capacity of this division, further *Neelgai* (blue bull) are multiplied which grazes the smallest sapling from its lower jaw till the roots come out from the soil. The total geographical area of the division is 4027 sq.km. and about 8.49 per cent of its area is under forest land and 72.18 per cent area is under cultivation. According to National Forest Policy, there should be 33.3 per cent area under effective forest cover, for which government and people have to jointly work.

2. Project Areas and Location

The area of Agra division is having undulating topography and along the rivers Yamuna, Chambal and Uttangan a large area is under ravines. Average altitude of the division is 100 to 500 metes from the mean sea level. The drainage is from north-west to south-east as the western boundary is formed by the Aravali ranges. The project area is located in district Agra in U.P. and spread over eight forest ranges of the social forest division. These forest ranges are Etmadpur, Bah, Pinhat, Jaitpur, Fatehabad, Kheragarh, Kerawali and Bainpur. The district of Agra is situated in the ancient region of 'Brij'. The city is situated on the west of the river Yamuna and lies 200 kms. south-east of Delhi. Three National Highways, namely NH-2 (Delhi – Calcutta), NH-3 (Delhi-Gwalior) and NH-11 (Agra-Jaipur) make junction at the historic city. The district borders the states of Rajasthan in the west and Madhya Pradesh in the south.

(a) **Geology and Soil**

On western boundary of Agra, the Aravali mountains are the oldest mountains of the world. The soil in this region is brought by Yamuna, Chambal and other tributaries coming from Aravali. The entire region is covered with loam and dumat soils, which varies place to place. Calcium content is in excess in the soil, which makes the soil easily soluble in flowing rain water causing the gully erosion and ravines. Nitrogen and biotic substances are missing from the soil.

(b) **Climate**

Comparatively Agra has dry and hot climate. Summer season is between March and June, when the maximum temperature reaches upto 48°C. Rainy season is between July to September for only 32 to 53 days and only meager rainfall upto 655 mm is recorded, however, these months are wet. Winter season is from November to January. Occasionally temperature goes down below the freezing point in the month of January and it becomes foggy and harmful to vegetation.

3. Any Previous Project

As per records no project was launched previously.

4. On-going Project: Socio-economic profiles of the villages covered, land holding and distribution of land use pattern, watershed features, forests covered, degree of pressure on forest resources, etc.

The socio-economic profile of each villages with number of household, total population SC/OBC composition of the population, number and category of livestock, land holding and their distribution, etc. is given below in Table 1.1

Table 1.1: Profile of JFMCs/Villages

Name of Range	Name of Village	Total Population			Land Details (Ha.)			Cattle Population
		Total	SC	OBC	Total Area	Land Holding	Forest Land	
Pinhat	Basai Gujar	1871	511	974	327.4050	228.135	86.390	936
	Basai Arela	2342	320	937	558.1620	341.352	211.700	1084
	Basai Bhaduria	2446	483	1179	487.2000	235.342	249.440	1029
	Seha	1419	454	762	596.3400	346.540	223.800	684
	Nagla Bhari	6100	605	1195	428.4710	335.420	95.305	1133
	Balai	5500	1000	1800	576.9200	293.091	275.600	980
	Arnotta	3532	608	2002	1113.1100	611.100	502.000	4370
	Manauna	2160	77	951	668.8400	431.780	182.790	1271
Bah	Mai Siddhavali	1834	330	1100	525.0000	164.000	229.000	1290
	Rampur Chandsaini	2400	288	144	736.0000	318.000	212.500	758
	Bateshwar	7000	1500	3500	1276.0000	521.000	589.000	886
	Kalinjar	1181	90	1076	397.0000	164.000	73.000	658
	Sunsar	1832	275	1282	902.2600	311.000	349.347	271
	Roodmuli	1773	354	89	581.1000	432.000	96.500	425
	Bichaula	1231	250	390	385.0000	282.000	78.000	658
	Bitauli	2400	360	240	310.4640	47.842	272.305	593
	Holipura	1800	180	180	129.0000	92.000	11.200	416
	Changauli	1400	250	400	359.0000	283.000	54.500	703
Jaitpur	Gati Barauli	1521	57	723	514.1000	107.000	329.100	273
	Kamtari	1739	441	860	541.5000	309.000	170.500	671
	Badagaon	2954	593	1984	1354.8000	832.000	471.800	758
	Khilawali	8730	1070	7110	2896.1840	1719.312	882.754	4540
	Garhwar	2920	220	1125	1011.6670	500.000	345.589	2640
	Charitha	1521	57	723	514.1000	128.000	329.100	273
	Naugaon	3003	389	1501	1455.6400	630.140	592.300	2857
	Kachaura	5245	885	3050	1115.9830	502.000	462.000	3680
	Nahtauli	2126	266	860	518.0000	254.000	242.000	2338
	Paarna	5853	870	3552	1906.9490	1084.063	609.450	3568
Fatehabad	Nibohra	5066	25	2536	1483.8000	1051.000	157.300	1506
	Rihawali	2539	40	2423	618.8000	293.000	291.800	2325
	Murawal	1092	65	1027	414.8000	352.000	39.800	419
	Khander	6625	1455	2145	1273.0000	949.000	324.000	730
	Aai	3220	423	2000	616.9090	574.000	41.940	5400
	Bamrauli	1278	300	700	375.4500	285.397	36.850	286
	Himayupur Hindaulia	1743	43	1700	767.6000	398.000	205.600	2555
	Shahved	3425	309	2911	554.5000	428.000	126.500	2250
	Silawali	1205	94	1000	426.5500	265.500	103.050	1600
	Baipur	Baipur	5770	779	3664	1246.5920	445.386	732.200
Etmadpur	Chaungaan	4535	790	220			279.200	
Kheragarh	Gungaavand	10595	1650	2000	33558.3574	3159.200	857.800	1746
	Saunikhera	2930	519	165	1968.6000	1539.000	429.600	
Total		134865	19275	62180	649.1540	21242.600	11423.010	63032

Source: Social Forestry Division, FDA, Agra.

5. Project Objectives

The main objectives of the project are as under:

- To improve vegetative cover in the area.
- To ensure continuous supply of fuel wood, fodder, small timber, etc. to meet the needs of local people.
- To increase the recharge of water and thereby to control the receding water table in and around the area of operation.
- To improve soil and moisture conservation.
- To generate employment opportunities for local people.
- To develop the pastureland.

6. Project Components

The important components of the project have been discussed below:

- Aided Natural Regeneration
- Artificial Regeneration
- Pasture
- Mixed Plantation of trees having medicinal and economic value
- Micro Planning
- Soil and Moisture Conservation
- Extension and promotion of JFM
- People's Participation
- Technology extension
- Entry Point Activities
- Monitoring and Evaluation, etc.

7. Salient Features Including Proposed Strategies for Treatment

The basic strategy is to cover the ravines and slopes by suitable vegetation which can stand during harsh and dry summer months in order to protect the valuable soil from erosion, maintain the moisture and recharge the ground water. The check-dam method has been applied in throughout the project. Seeds are sown or saplings of mixed plants are grown in and around the small and big check-dams, which are showing a good result. After the successful plantation a ray of hope is observed among the villagers, and it is further strengthened when they are benefited by the entry-point-activities. Success of neem, sheesham, amla, jetropha, etc. plants would definitely change the socio-economic condition of local people.

8. Creation of Joint Forest Management Committee & Development Funds

43 villages were selected, where Village Forest Committees (VFCs) were constituted after holding meeting with the village panchayats. After obtaining their consent a committee was formed with a Chairman among the resident villagers and local forester as a Member Secretary. The following criterion was adopted in selecting 43 villages:

- Extreme unemployment and poverty among villagers who are in desperate need of some employment for their livelihood.
- A large proportion of SC and OBC population depending upon forest for their food, fodder and building material.
- Creation of community assets, which would be linking the villagers with overall eco-development of the area in order to make them self-dependent.
- Villagers co-operate the afforestation activities and take interest in management and protection of forest.

9. Implementing Agencies: Composition and Constitution of FDA and Field Implementing Units

Conservator of Forest Brijbhumi Circle is the ex-officio Chairman of FDA, Divisional Forest Officer of the Forest Division is the ex-officio Secretary of the FDA. Agra district level officers of the important departments like Revenue, Police, Agriculture, Animal Husbandry, Medical Department, etc. are the members of the FDA. There are 43 Joint Forest Management Committees have been created to implement and maintain.

10. Micro Planning and JFM

In all 43 Micro Plans have been prepared and one each Joint Forest Management Committee have been created under FDA, Agra. At range level micro-planning team was headed by the concerned range officer with one forester and one forest guard. It was conducted through Participatory Rural Appraisal (PRA) process.

11. Entry Point Activities

For allurement of villagers to make the afforestation scheme a success, repair of school/temple, building the community hall, maintenance of forest roads and culverts, organization of health camps, instalment of hand pumps, repair of wells and ponds and other such community activities are undertaken as per the requirement of specific village limiting to 25 per cent of the

budgetary allocation of the total project cost. It creates interest among villagers to protect forest wealth from theft, lopping, harmful grazing and preventing from fire, which is a great challenge. Over-grazing and lopping leads to soil erosion, depletion of vegetation and moisture. Entry Point Activity has shown success in throughout the division.

12. Approved Programme of Works

Overall 1500 hectare area have been treated in the project during 2002-03 to 2006-07, natural regeneration 100 hectare and by Management intervention 1400 hectare. It is given below in Table 1.2.

Table 1.2 : Approved Programme of Work (2002-2003 to 2006-07)

Sl. No.	Name of Work	Year-wise Physical and Financial Target/Outlay Break-up										(Rs. in Lakh and Area in ha.)		
		Rate in Rs.	2002-03		2003-04		2004-05		2005-06		2006-07		Total	
			Phy.	Fin.	Phy.	Fin.								
01.	Aided Natural Regeneration	9750												
	Admissible Rate	7540												
	a) Advance	3000	100	3.00									100	3.00
	b) Creation	2390			100	2.39							100	2.39
	c) Maintenance	2150					100	0.90	100	0.75	100	0.50	100	2.15
	Sub-Total	7540		3.00		2.39		0.90		0.75		0.50		7.54
02.	Artificial Regeneration													
	Admissible Rate	13224												
	a) Advance	6524	500	32.87	500	32.87	400	26.30					1400	92.04
	b) Creation	4500			500	22.50	500	22.50	400	18.00			1400	63.00
	c) Maintenance	2150					500	4.50	1000	8.25	1400	9.85	1400	22.60
	Sub-Total	13224		32.87		55.37		53.30		26.25		9.85		177.64
03.	Pasture Development													
	Admissible Rate													
	a) Advance													
	b) Creation													
	c) Maintenance													
	Sub-Total													
04.	SMC (@15% of Plantation Cost)	1852		11.11		11.11		5.56						27.78
05.	M&E Micro-Plan Awareness (10%)	1235		6.48		3.70		3.70		2.78		1.86		18.52
06.	Overhead @ 10% of plantation	1235		3.59		5.78		5.42		2.70		1.03		18.52
07.	EPA @ Rs.4000/-	4000		12.00		12.00		12.00		12.00		12.00		60.00
08.	Improved Technology													
	Total			69.05		90.35		80.88		44.48		24.24		310.00

Source: Social Forestry Division, FDA, Agra.

CHAPTER II

QUANTITATIVE ANALYSIS

B.1 CLASSIFICATION OF AREA COVERAGE/TREATED

Total target area covered under added natural regeneration and artificial regeneration of forest land was 1500 hectares. In first phase on 550 hectares advance work and creations was carried out in 2003-04 and then maintenance work was undertaken during 2004-05 to 2006-07. In second phase again on 550 hectare advance work was done during 2004-05 and then during 2005-06 creation work was undertaken. During 2006-07 maintenance was done. In third phase 2005-06 advance work and creation was carried out on 400 hectare, then during 2006-07 maintenance began. Thus during first year 36.67 per cent, second year 36.67 per cent and third year 26.66 per cent of total 1500 hectare afforested and was covered. Phase-wise tables are given below.

CREATION OF CHECK DAMS AND AFFORESTATION IN BALAI VILLAGE

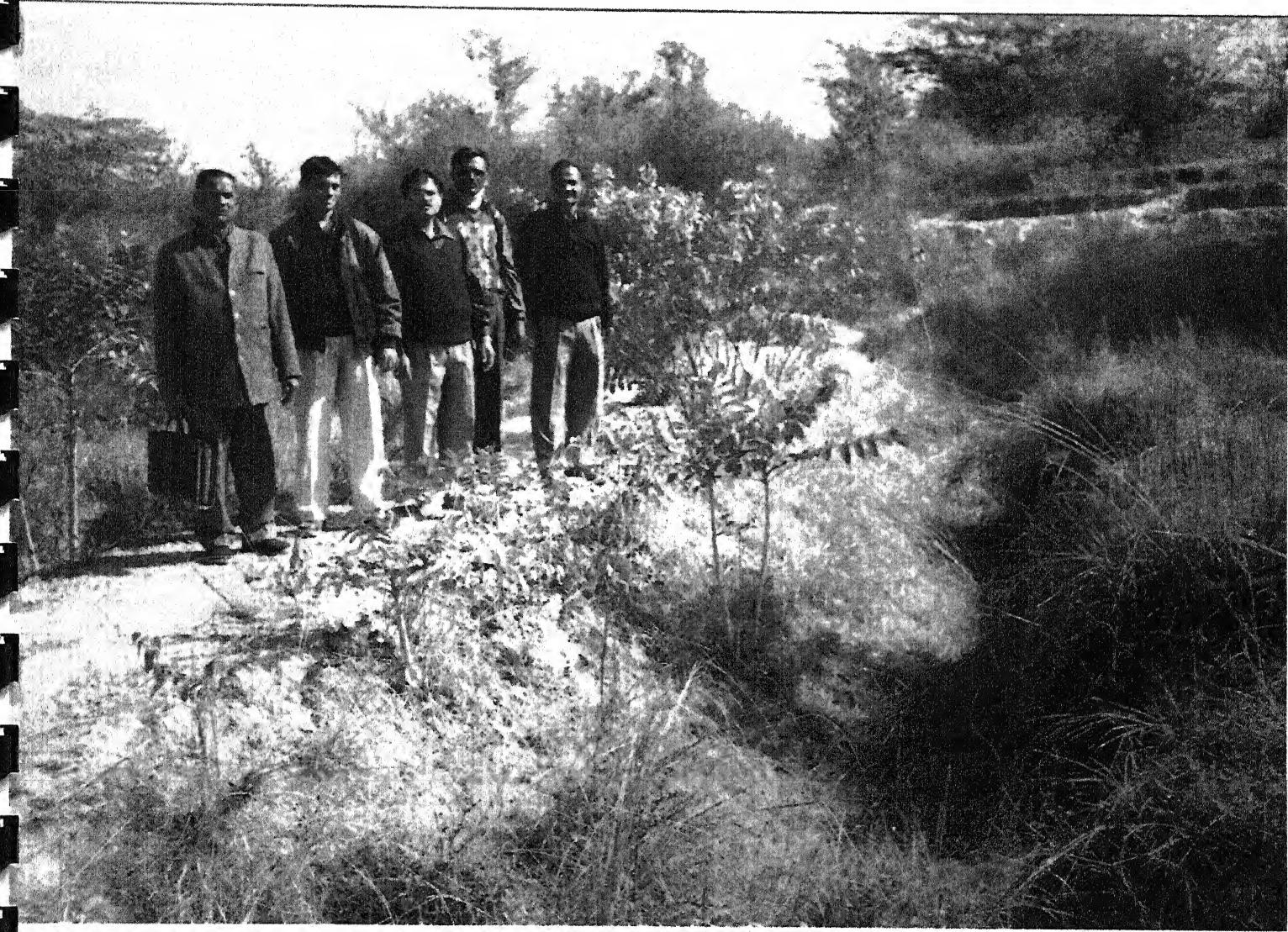


Table 2.1: Classification of Area Covered/Treated

(Area in Ha.)

Category	Added Natural Regeneration	Artificial Regeneration	SP/PD	Bamboo Plantation	Cane Plantation	Mixed Plantation Having Medicinal Value	MFP & Trees of Medicinal Value	Perennial Herbs and Shrubs	Total	% of Total Project Area
2003-04 (Advance Work)										
Forest land	50	500							550	36.67
Community land										
Revenue land										
Govt. Wasteland										
Private land										
Others										
Total	50	500							550	36.67
2003-04 (Creation)										
Forest land		500							500	33.33
Community land										
Revenue land										
Govt. Wasteland										
Private land										
Others										
Total		500							500	33.33
2004-05 (Maintenance)										
Forest land		500							500	33.33
Community land										
Revenue land										
Govt. Wasteland										
Private land										
Others										
Total		500							500	33.33
2005-06 (Maintenance)										
Forest land		500							500	33.33
Community land										
Revenue land										
Govt. Wasteland										
Private land										
Others										
Total		500							500	33.33
2006-07 (Maintenance)										
Forest land		500							500	33.33
Community land										
Revenue land										
Govt. Wasteland										
Private land										
Others										
Total		500							500	33.33

Source: Social Forestry Division, FDA, Agra.

Table 2.2: Classification of Area Covered/Treated

(Area in Ha.)

Category	Added Natural Regeneration	Artificial Regeneration	SP/PD	Bamboo Plantation	Cane Plantation	Mixed Plantation Having Medicinal Value	MFP & Trees of Medicinal Value	Perennial Herbs and Shrubs	Total	% of Total Project Area
2004-05 (Advance Work)										
Forest land	50	500							500	36.67
Community land										
Revenue land										
Govt. Wasteland										
Private land										
Others										
Total	50	500							500	36.67
2005-06 (Creation)										
Forest land	50	500							500	36.67
Community land										
Revenue land										
Govt. Wasteland										
Private land										
Others										
Total	50	500							500	36.67
2006-07 (Maintenance)										
Forest land	50	500							500	36.67
Community land										
Revenue land										
Govt. Wasteland										
Private land										
Others										
Total	50	500							500	36.67
2007-08 (Maintenance)										
Forest land										
Community land										
Revenue land										
Govt. Wasteland										
Private land										
Others										
Total										
2008-09 (Maintenance)										
Forest land										
Community land										
Revenue land										
Govt. Wasteland										
Private land										
Others										
Total										

Source: Social Forestry Division, FDA, Agra.

Table 2.3: **Classification of Area Covered/Treated**

(Area in Ha.)

Category	Added Natural Regeneration	Artificial Regeneration	SP/PD	Bamboo Plantation	Cane Plantation	Mixed Plantation Having Medicinal Value	MFP & Trees of Medicinal Value	Perennial Herbs and Shrubs	Total	% of Total Project Area
2004-05 (Advance Work)										
Forest land		400							400	26.66
Community land										
Revenue land										
Govt. Wasteland										
Private land										
Others										
Total		400							400	26.66
2005-06 (Creation)										
Forest land		400							400	26.66
Community land										
Revenue land										
Govt. Wasteland										
Private land										
Others										
Total		400							400	26.66
2006-07 (Maintenance)										
Forest land		400							400	26.66
Community land										
Revenue land										
Govt. Wasteland										
Private land										
Others										
Total		400							400	26.66
2007-08 (Maintenance)										
Forest land										
Community land										
Revenue land										
Govt. Wasteland										
Private land										
Others										
Total										
2008-09 (Maintenance)										
Forest land										
Community land										
Revenue land										
Govt. Wasteland										
Private land										
Others										
Total										

Source: Social Forestry Division, FDA, Agra.

B.2 PHYSICAL AND FINANCIAL ACHIEVEMENTS

According to Table 2.4 during 2003-04 in advance work for natural regeneration of 50.00 per cent target was achieved, when in advance work for artificial regeneration 100.00 per cent target was achieved. Overall financial achievement including the soil and moisture conservation, EPA, micro planning and overheads 90.47 per cent target was achieved.

During 2004-05 creation of natural regeneration was 50 hectare which was not actually targeted that year. However, in artificial regeneration, both advance work and creation were cent per cent of the target. Overall financial achievement was 79.34 per cent in all works like afforestation activity, soil and moisture conservation, EPA, micro planning and overheads.

During 2005-06 also on 50 hectare creation of natural regeneration was done which was not targeted. Under artificial regeneration, the advance work, creation and maintenance, all the targets were fully achieved. This year overall financial achievement was more than the targeted, i.e. 105.06 per cent.

During 2006-07 under natural regeneration only 50 per cent target was achieved for maintenance of afforestation, whereas, under artificial regeneration maintenance target was fully achieved. Overall achievement of financial target was 102.66 per cent.

Under National Afforestation Programme (NAP) total target of 1500 hectare was fixed, which was successfully achieved. There was financial approval of Rs.310 lakh and target was of Rs.305.05 lakh, which was achieved 93.63 per cent till date (See Tables).

A SCENE OF AFFORESTATION IN REVINES
OF VILLAGE PARNA



Table 2.4: **Physical and Financial Achievements, 2003-2004**

Sl. No.	Item	Physical (Area in Ha.)		Financial (Rs. in Lakh)	
		Target for the Area	Achieved in the year	Target for the Area	Achieved in the year
1.	Natural Regeneration				
	a) Advance Work	100	50	3.00	
	b) Creation				
	c) Maintenance – I year				
	Sub-Total	100	50	3.00	
2.	Artificial Regeneration				
	a) Advance Work	500	500	32.87	32.87
	b) Creation				
	c) Maintenance – I year				
	Sub-Total	500	500	32.87	32.87
3.	Pasture Development				
	a) Advance Work				
	b) Creation				
	c) Maintenance – I year				
	Sub-Total				
4.	Soil & Moisture Conservation			11.11	11.11
5.	EPA			12.00	12.00
6.	Micro-Planning			6.48	2.90
7.	Fencing				
8.	Monitoring and Evaluation				
9.	Improved Technologies				
10.	Overheads			3.59	3.59
	Total			69.05	62.47

Source: Social Forestry Division, FDA, Agra.

Table 2.5: Physical and Financial Achievements, 2004-2005

Sl. No.	Item	Physical (Area in Ha.)		Financial (Rs. in Lakh)	
		Target for the Area	Achieved in the year	Target for the Area	Achieved in the year
1.	Natural Regeneration				
	a) Advance Work				
	b) Creation		50		0.75
	c) Maintenance – I year			2.39	
	Sub-Total		50	2.39	0.75
2.	Artificial Regeneration				
	a) Advance Work	500	500	32.87	24.35
	b) Creation	500	500	22.50	22.50
	c) Maintenance – I year				
	Sub-Total				
3.	Pasture Development				
	a) Advance Work				
	b) Creation				
	c) Maintenance – I year				
	Sub-Total				
4.	Soil & Moisture Conservation			11.11	8.22
5.	EPA			12.00	9.38
6.	Micro-Planning			3.70	2.00
7.	Fencing				
8.	Monitoring and Evaluation				
9.	Improved Technologies				
10.	Overheads			5.78	4.48
	Total			90.35	71.68

Source: Social Forestry Division, FDA, Agra.

Table 2.6: **Physical and Financial Achievements, 2005-2006**

Sl. No.	Item	Physical (Area in Ha.)		Financial (Rs. in Lakh)	
		Target for the Area	Achieved in the year	Target for the Area	Achieved in the year
1.	Natural Regeneration				
	a) Advance Work				
	b) Creation		50		2.25
	c) Maintenance – I year			0.90	
	Sub-Total		50	0.90	2.25
2.	Artificial Regeneration				
	a) Advance Work	400	400	26.30	26.30
	b) Creation	900	900	22.50	22.50
	c) Maintenance – I year	500	500	4.50	4.50
	Sub-Total				
3.	Pasture Development				
	a) Advance Work				
	b) Creation				
	c) Maintenance – I year				
	Sub-Total				
4.	Soil & Moisture Conservation			5.56	7.42
5.	EPA			12.00	12.00
6.	Micro-Planning			3.70	1.70
7.	Fencing				
8.	Monitoring and Evaluation				
9.	Improved Technologies				
10.	Overheads			5.42	8.30
	Total			80.88	84.97

Source: Social Forestry Division, FDA, Agra.

Table 2.7: Physical and Financial Achievements, 2006-2007

Sl. No.	Item	Physical (Area in Ha.)		Financial (Rs. in Lakh)	
		Target for the Area	Achieved in the year	Target for the Area	Achieved in the year
1.	Natural Regeneration				
	a) Advance Work				
	b) Creation				
	c) Maintenance – I year	100	50	1.25	
	Sub-Total				
2.	Artificial Regeneration				
	a) Advance Work				
	b) Creation				
	c) Maintenance – I year	1400	1400	31.15	16.69
	Sub-Total				
3.	Pasture Development				
	a) Advance Work				
	b) Creation				
	c) Maintenance – I year				
	Sub-Total				
4.	Soil & Moisture Conservation				1.03
5.	EPA			24.40	26.62
6.	Micro-Planning			4.64	11.92
7.	Fencing				
8.	Monitoring and Evaluation				8.08
9.	Improved Technologies				
10.	Overheads			3.73	2.15
	Total			64.77	66.49

Source: Social Forestry Division, FDA, Agra.

(i) Adequacy of the Planting Stock Raised or Available in Each Year

According to data available plantation work was carried out during 2003-04 in which 590 hectare area was covered in 20 VFCs and total 619,000 plants of different species were planted. Under artificial regeneration 540 hectares were covered with 594,000 plants and under added natural regeneration 50 hectares were covered with 25,000 plants. Important species of plants were babool, juoli, arru, Papdi, Sahjan, sheesham, etc. and the survival rate was recorded about 75.00 per cent.

During 2005-06 in 33 VFCs 1020 hectare was brought under plantation numbering 1,092,000 plants. Under artificial regeneration 970 hectares were covered with 1,067,000 plants and under added natural regeneration 5 hectares were covered with 25,000 plants. Species of plants were babool, juoli, arru, Papdi, Sahjan, neem, jetropha, sheesham, etc. and their survival rate was about 95.00 per cent (see Table 2.8).

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Table 2.8: Inventory of Plant Species Used in the Project 2003-04 & 2005-06

Sl. No.	Scheme	Range	VFC Site Name	Area (ha.)	No. of Plant	Survival Rate	Species	Plantation year
1.	2.	3	4	5	6	7	8	9
1.	AR	Pinhat	Basai Gujar Van Block	25.0	27500	75%	Babool, Jyuli, Aru, Papri, Sahjan, Shisham etc.	2003-04
2.	AR	Pinhat	Basai Arela	25.0	27500			
3.	AR	Pinhat	Basai Bhadoriya	25.0	27500			
4.	AR	Bah	Mai Sidhwali	30.0	33000			
5.	AR		Rampur Chandrasaini	25.0	27500			
6.	AR	Bah	Bateshwar	25.0	27500			
7.	AR	Bah	Kalinjar	30.0	33000			
8.	AR	Bah	Sunsar	30.0	33000			
9.	AR	Jaipur	Gari Barauli	40.0	44000			
10.	AR	Jaipur	Kawtari	30.0	33000			
11.	AR	Jaipur	Bara Gawn	35.0	38500			
12.	AR	Jaipur	Khilawali	30.0	33000			
13.	AR	Fatehabad	Nivohara	25.0	27500			
14.	AR	Fatehabad	Rihawali	25.0	27500			
15.	AR	Fatehabad	Murawal	25.0	27500			
16.	AR	Fatehabad	Khander	25.0	27500			
17.	AR	Bainpur	Babarpur	30.0	33000			
18.	AR	Etmadpur	Chaungan	20.0	22000			
19.	ANR	Kheragarh	Gungavand	50.0	25000			
20.	AR	Pinhat	Saha	40.0	44000			
		Total	VFC 20	590	619000			
								2005-06
1.	AR	Pinhat	Nagla Bhari	25.0	27500	95%	Babool, Jyuli, Aru, Papri, Sahjan, Neem, Jatrofa, Shisham etc.	
2.	AR	Pinhat	Balai	55.0	60500			
3.	AR	Pinhat	Arnauta	45.0	49500			
4.	AR	Pinhat	Manona	25.0	27500			
5.	AR	Bah	Rudmuli	25.0	27500			
6.	AR	Bah	Bichaula	25.0	27500			
7.	AR	Bah	Bithauli	25.0	27500			
8.	AR	Bah	Bateshwar	30.0	33000			
9.	AR	Bah	Kalinjar	25.0	27500			
10.	AR	Bah	Holipura	30.0	33000			
11.	AR	Bah	Changauli	30.0	33000			
12.	AR	Bah	Sunsar	25.0	27500			
13.	AR	Jaitpur	Garhwar	30.0	33000			
14.	AR	Jaitpur	Charitha	50.0	55000			
15.	AR	Jaitpur	Naugava	50.0	55000			
16.	AR	Jaitpur	Bara Gawn	25.0	27500			
17.	AR	Jaitpur	Chauranga	30.0	33000			
18.	AR	Jaitpur	Khilawali	15.0	16500			
19.	AR	Jaitpur	Kachaura	25.0	27500			
20.	AR	Jaitpur	Nahtoli	15.0	16500			
21.	AR	Jaitpur	Parna	20.0	22000			
22.	AR	Fatehabad	Aai	25.0	27500			
23.	AR	Fatehabad	Bamrauli	25.0	27500			
24.	AR	Jaitpur	Kachaura	25.0	27500			
25.	AR	Jaitpur	Nahtauli	15.0	16500			

Table 2.8 contd...

26.	AR	Jaitpur	Parna	20.0	22000			
27.	AR	Fatehbad	Aai	25.0	27500			
28.	AR	Fatehbad	Bamrauli	25.0	27500			
29.	AR	Fatehbad	Himaupur Hindon	30.0	33000			
30.	AR	Fatehbad	Shahved	30.0	33000			
31.	AR	Fatehbad	Silawali	25.0	27500			
32.	ANR	Bainpur	Baipur	50.0	25000			
33.	AR	Kheragarh	Saunikhera	100.00	110000			
Total		VFC 33		1020	1092000			
Total Artificial Regeneration AR		VFC 51		1510	1,661,000			
Total Added Natural Regeneration ANR		VFC 2		100	50,000			
Grand Total		53*		1610	1,711,000			

* There are villages where in both years afforestation work was carried out.

Source: Social Forestry Division, FDA, Agra.

ii An Overview of Sample JFMC

Randomly 5 JFMCs samples were chosen in different sites namely Bateshwar, Balai, Parna, Silawali and Sonikhera, which were physically verified to evaluate the survival rate and growth of species. Details of the sample JFMCs are given in the following table.

Table 2.9: Inventory of Sample JFMCs

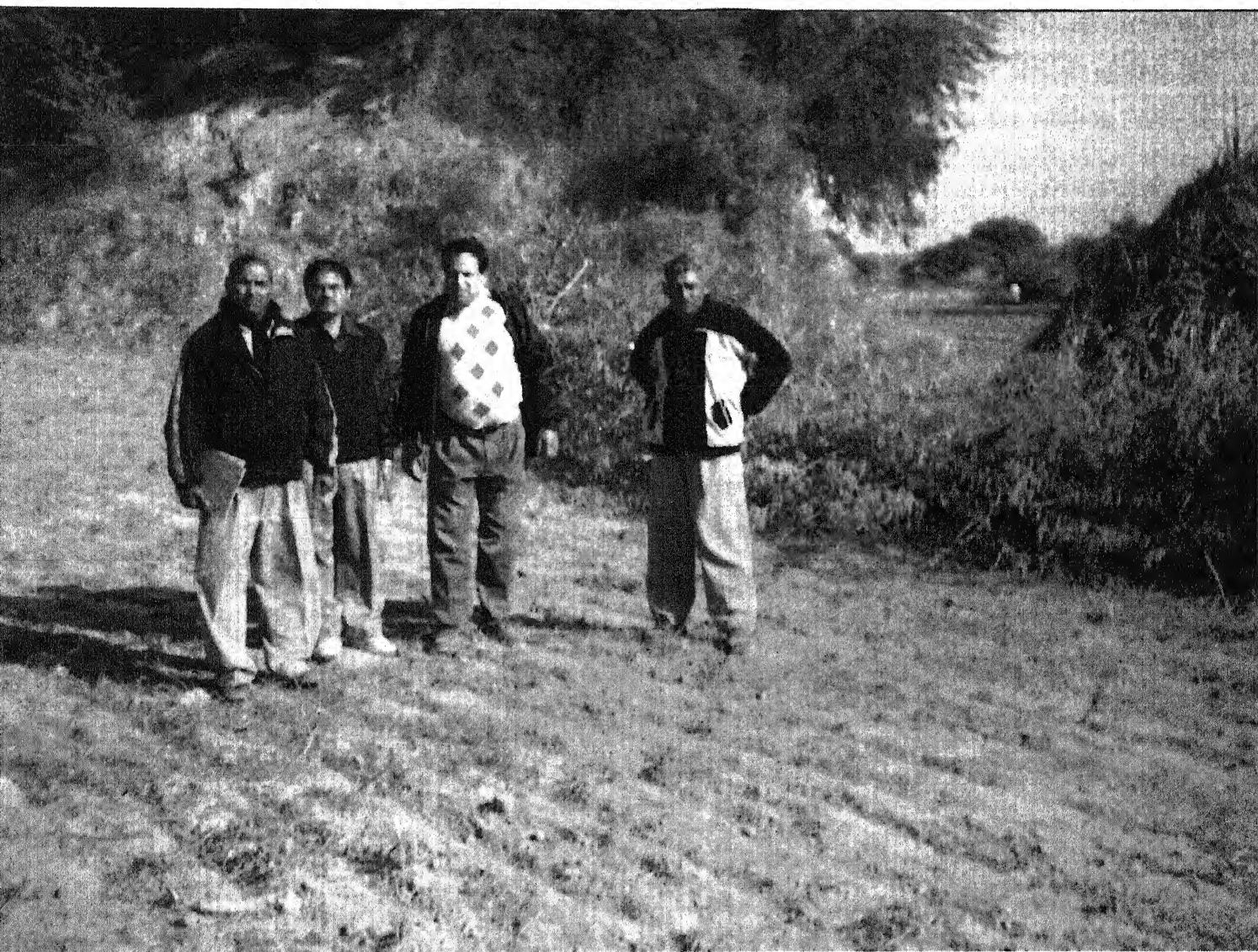
Sl. No.	Scheme	VFC/Site Name	Area in Ha.	No. of Plants	Survival Rates (%)	Species	Plantation Year
1.	AR	Bateshwar	25	27,500	75	Babool, Juoli, Arru, Papdi, Sahjan, Sheesham	2003-04
		Bateshwar	30	33,000	95	Babool, Juoli, Arru, Papdi, Sahjan, Jatropha, Sheesham	2005-06
2.	AR	Balai	55	60,500	95	Babool, Juoli, Arru, Papdi, Sahjan, Jatropha, Sheesham	2005-06
3.	AR	Parna	20	22,000	95	Babool, Juoli, Arru, Papdi, Sahjan, Jatropha, Sheesham	2005-06
4.	AR	Silawli	25	27,500	95	Babool, Juoli, Arru, Papdi, Sahjan, Jatropha, Sheesham	2005-06
5.	AR	Sonikhera	100	110,000	95	Babool, Juoli, Arru, Papdi, Sahjan, Jatropha, Sheesham	2005-06
Total		255	280,500	91			

Source: Based on field observation and FDA records.

1. VFC, Bateshwar

The location of VFC Bateshwar is adjacent with ravines of river Yamuna in south-east of Agra at distance of 90 km. The entire area of plantation of this VFC falls in reserve forest category. The topography of this area is undulating and ravenous with calcareous soil. Total

AFFORESTATION, PRODUCTION OF BIOMASS
AND SOIL CONSERVATION IN VILLAGE BATESHWAR



60,500 plants of different species were planted on 55 hectare during 2003-04 and 2005-06 were Babool, Juoli, Arru, Papdi, Sahjan, Sheesham, Neem, Jatropha, etc. Average survival rate of plants was estimated after physical verification, it was found between 75 to 95 per cent, which was extremely encouraging. After discussion with the villagers it appeared that their joint efforts and enthusiasm along with positive association of DFA was the main reason of extreme success.

Since the right type of drought resistant species were planted which created moisture to enable further plantation successfully. Check-dam method was quite successful in retaining the rain water and night moisture in the trenches as a result the growth of plants was quite fast in the trenches as compared to plants grown on bunds. Most of the villagers were serious against the astray animal grazing. The fast emerging greenery is also reflected from the smiling faces of villagers and their well fed animals.

2. VFC, Balai

VFC, Balai is about 65 km. in the south-east of Agra city, which is located between the catchment areas of river Utangan and Yamuna. The entire area is affected by ravines, only small patches are left for agriculture. Water is the major problem for household and irrigation. India Mark-II hand pumps provided under EPA have attracted villagers to participate in national forestry programme. Total 60,500 plants of different species were planted on 55 hect. of land during 2005-06 were Babool, Juoli, Arru, Papdi, Sahjan, Neem, Jatropha, Sheesham, etc. After physical survey in the field average survival rate of plants was found about 95 per cent, which is extremely encouraging. Though initially growth rate is slow due to extreme dryness, but their survival is assured by local villagers, as animal grazing is done with utmost care. Small and big check-dam strategy is quite successful in retaining the moisture for plant survival besides other control measures.

3. VFC, Parna

VFC, Parna is on the south-east direction of Agra city at a distance of about 90 km. It is located on meander of river Yamuna, almost bordering with district Etawah. The entire area is under ravines and dust. People are poor due to meager yield from semi and unirrigated fields. Animal husbandry and labour work is the alternative source of income. Out of 609 hectares land belonging to forest department, total 20 hectares land is afforested with about 22,000 plants. Various species of plants like Babool, Juoli, Arru, Papdi, Sahjan, Neem, Jatropha, Sheesham, etc. are grown. Due to dedicated cooperation of villagers and forest officials, the survival rate is estimated to be 95 per cent. It is expected that in few years plants would cover the entire area

under its greenery to lead a healthy eco-system. After having a discussion in the village gathering, it appeared that people are realizing the brighter future with the growing forests.

4. VFC, Silawli

VFC, Silawli is located between river Yamuna and Utangan, which is about 65 km. in the south-east of Agra city. This VFC is also under the grip of ravines and the remaining agricultural fields are under serious threat of soil erosion. Out of 103 hectares reserved forest land, 25 hectares are brought under afforestation scheme, where about 27,500 plants are grown. The varieties of plants are Babool, Juoli, Arru, Papdi, Sahjan, Neem, Jatropha, Sheesham, etc. and the survival rate is estimated about 95 per cent. Small and big check-dams are created, where plants are grown. Field observation reveals that in deep trenches due to moisture growth of plants is faster in comparison to plants grown on the bunds.

5. VFC, Sonikhera

VFC, Sonikhera is located in the extreme south-west of Agra district on the foothill of Aravallis, which is at a distance of about 85 km. from Agra city. Due to proximity with the Aravali ranges, occasionally hard rocks are found and during summer season the temperature is comparatively higher than the other parts of the district. Due to fast evapotranspiration during summer, moisture in soil and atmosphere becomes negligible. The entire forest land of 430 hectares is undulating with harsh erosion in which 100 hectares of land is covered by 110,000 plants under afforestation scheme during 2005-06. Small and big check-dams were created and then plantation was carried out, which has shown a good result. For construction of big check-dams villagers also contributed Shramdan. Generally, plant species were Babool, Juoli, Arru, Papdi, Sahjan, Neem, Jatropha, Sheesham. Though the plant growth is slow in dry patches of upper portions of check-dams, but the overall survival rate is 95 per cent.

B.3 PEOPLE'S PARTICIPATION

B.3.1 Participatory Rural Appraisal/Micro-Planning

Micro-plans of 43 VFC villages were completed prior to the implementation of the project, which were available with the Forest Department. These micro plans were prepared through the process of PRA as required. A lump sum amount of Rs.6.30 lakh was spent in preparation of micro planning of 43 VFCs, which is 2 per cent of the total project cost and 3 per cent cost of the work component as per NAEB guidelines.

Table 2.10: **Creation of Assets Under EPA 2003-04 to 2006-07**

Name of Village	Assets Created under EPA	No. of Assets	Expenditure Incurred (Rs. in Lakh)	Peoples Contribution Towards Expenditure
Baipur	Boring of two new handpumps and construction work of Ponds. Maintenance of old handpumps & renovation of schools	2	2.00	
Babarpur	Boring of handpumps in Naglajot on the side of road, Boring of handpump in Baipur old Chaupad. Boring of handpump in Garhi Baipur near Deewarilal's house. Cleaning of drain	2	1.20	
Chaugan	Construction of community hall.	1	0.80	
Rihawali	3798 mtr. ponds construction work and boring of one handpump.	1	1.00	
Murawal	Construction of ponds for drinking water for animals different goods purchased for social activities.	1	1.00	
Khander	Construction of Kharan; a 200 sq.ft. and boring of one handpump.	1	1.00	
Nibohra	Different goods purchased for social activities, construction of Dam for ponds.	1	1.00	
Himayunpur Indone	Different goods purchased for social activities one hand pump boring under mukhiya that peepal and construction of dams 1560 Cubic Metre	3	1.20	
Shahved	Different goods purchased for social activities and boring of three handpump.	3	1.20	
Silawali	Boring of one handpump near Betwal Singh's house and construction of three dams for ponds of 1902 Cubic Metre	1	1.00	
Aie	One hand pump boring near Dharamveer's house and construction of three dams of 1900 Cubic Metre	1	1.00	
Bamroli	Construction of marriage house 15x12 at Bamroldhaar.	1	1.00	
Basai Bhadauria	Construction of pond & dam. boring of two handpumps in kankarkhera & Basai Bhadauria.	2	1.00	
Basai Arela	Construction of passenger waiting stand near police station, boring of handpump in Basai.	2	1.00	
Basai Goojer	Construction of two sides wall of temple.	1	1.00	
Seha	Boring of one handpump near mata temple, construction of kharanja, boring of one handpump in front of Ram Bharose house, Bardana purchased for social activities.	2	1.60	
Nagla Bhari	Construction of one room 15x10 sq. ft. in Naglabhari.	1	1.00	
Balai	Boring six handpumps in Narijat pura Arrosa.	1	2.20	
Arnauta	Boring of six handpumps in Beeghpura Arnauta & Sukhlalpur	6	1.80	
Manona	Bardana for social activities utensils purchased	6	1.00	
Bateshwar	Construction of one waiting stand and dam for ponds in Bateshwar & Boring of three handpumps.	3	2.20	
Kalinjer	Boring of four new handpumps and maintenance work of one old, construction of ponds and road maintenance.	4	2.20	
Sunsar	Construction of forest road and dam for ponds and boring of one handpump.	1	2.20	
Mai Sidhwali	Construction of ponds and boring of two handpumps and road maintenance work.	2	1.20	
Rampur Chandrasaini	Construction of ponds and boring of one handpump	1	1.00	
Roodmuli	Boring of two handpumps and construction of dam for ponds	2	1.00	
Bichaula	Boring of one handpump at Neem dada and one in front of Amar Singh	1	1.00	

Table 2.10 contd...

Name of Village	Assets Created under EPA	No. of Assets	Expenditure Incurred Rs. in Lakh	Peoples Contribution Towards Expenditure
Bithauli	Boring one handpump behind pradhan's house and one in village.	1	1.00	
Changauli	Boring of two handpumps and maintenance work of ponds and old handpump	2	1.20	
Holipura	Boring of two handpumps maintenance work of ponds and one old hand pump	2	1.20	
Baragaon	Boring of five handpumps utensils purchased for social activities and maintenance work of old dams, construction of dams for ponds	5	2.40	
Garhi Baroli	Boring of one handpump in Majra Gudiana and two in Chareetha village and goods purchased for social activities, and construction of dams for ponds.	2	1.60	
Kamtari	Boring of one handpump near hardev's house construction work of passenger-waiting-stand on Kamtari Triangle & boring of two new handpumps.	2	1.20	
Khilawali	Boring of five handpump in Khilawali village and repairing of old. Repair of courtyard of Hanuman temple, repairs pond.	5	1.80	
Naugawan	Boring of two handpumps, different goods and carpet purchased for social activities & re-boring of one old handpump.	2	2.00	
Parna	Boring of two handpumps, two carpet purchased	2	0.80	
Nahtauli	Boring of two handpumps	2	0.60	
Garhwar	Boring of two handpumps.	2	1.20	
Charitha	Boring of Six handpumps, four carpets purchased and repair of one old hand pump.	6	2.00	
Kahcaura	Boring of two handpumps and one old repairing.	2	1.00	
Chauranga (Baragaon)	Boring of two new handpumps & one old repairing	2	1.20	
Saunikhera	Digging for pond and lining it with stones at temple of Sidhbaba	1	4.00	
Goongavand	No work	-		
	Total	91	58.00	

Source: Based on field observation and FDA records.

B.3.2 Entry Point Activities

Out of total 43 VFC Villages the EPA work was done in 42 VFC villages. Since the villagers were facing severe drinking water crisis, therefore, in EPA priority was given to hand pumps and overall 85 hand pumps were installed in 33 villages. In few villages old hand pumps were repaired and brought in working condition. Another priority area was repair and creation of ponds and small dams to retain the rain water for villagers, their animals and to recharge the ground water. This work was done in 20 villages. Repair and construction of village approach roads, repair and cleaning the drains, repair, renovation and construction of community buildings in 13 villages. For community uses utensils and carpets were purchased and provided. Record shows that overall about Rs.58.00 lakh were spent on above EPA work. After discussions it appeared that EPA has made the lives of villagers relatively easy and bounded them to make the afforestation scheme successful for future prosperity (See Table 2.10 as mentioned above).

Table 2.11: Expenditure on EPA Work

Sl. No.	Year of Expenditure	Expenditure (Rs. in Lakh)
1.	2002-03	--
2.	2003-04	12.00
3.	2004-05	9.38
4.	2005-06	12.00
5.	2006-07	26.62

Source: Based on field observation and FDA records.

B.3.3 Joint Forest Management

The following JFMC approach was adopted in the project:

- (a) Number of Villages where formation initiated in Division 43
- (b) Number of Villages where formal committees established in Division 43
- (c) Total Number of Committees established so far in the project area 43
- (d) Total Membership in terms of households/families 50% of villages
- (e) Percentage of women, SCs, STs in the JFM Committees:

It is given as follows:

Table 2.12: Social Composition of Beneficiaries, 2003-04 to 2006-07

Social Category	Male	Female	Total	Percentage
Scheduled Castes	11565	7710	19275	14.29
Scheduled Tribes	--	--	--	--
Others	69354	46236	115590	85.71
Total	80919	53946	134865	100.00

Source: Based on field observation and FDA records.

- (f) Establishment of Village Development Fund No
- (g) JFMCs/FDA Meetings:

Table 2.13: Meetings held during 2003-04 to 2006-07

EBMs & GBMs Held	JFMC Meetings	FDA Meetings
Number of General Body Meetings held	95	3
Number of Executive Body Meetings held	1140	3

Source: Based on field observation and FDA records.

- (h) Micro Planning
Prepared/Discussed/Ratified by VFC/Under Implementation, Micro Plans were prepared for all the 43 JFMCs and they were implemented.
- (i) List of Important Registers/Records Maintained by and Available with:
 - (a) Plantation Journal, Nursery, Cash Book, Measurement Book, Stock Register and Meeting Register.
 - (b) FDA's Meeting register, Cash Book, Stock Register.

B.3.4 Capacity Building:

Training on JFMC/Community Participation Conducted. It is as follows:

Table 2.14: Capacity Building Programmes

Training Programmes Conducted		Topics Covered
Staff:		FDA Guidelines FDA Accounts Record Keeping
Number Trained	66	
Topic Covered	--	
Community	--	
Number trained	84	
Topics Covered	--	
Organizations Involved Trainers	Forest Officer, Forest Training Institute, Kanpur, Bainpur Training Centre, Agra.	

Source: Based on field observation and FDA records.

Table 2.15: Year-wise Expenditure Incurred on Training Activities

2004-05	2005-06	Total
Rs.62,376	Rs.6533	Rs.68,909

Source: Based on field observation and FDA records.

3.5 Monitoring and Evaluation

Number of Inspection by:

- (i) Chief Conservator of Forest -
- (ii) Conservator of Forest 1
- (iii) Deputy Conservator of Forest 11

Whether FDA conducted by the regular Monitoring and Evaluation of Project Activities?

Yes

Table 2.16: Year-wise Expenditure Incurred on Monitoring and Evaluation*

2006-07	Total
Rs.23,200	Rs.23,200

*Giri Institute of Development Studies, Lucknow is evaluating and part payment is made

Were any independent agencies involved in the above monitoring process? Yes

If Yes, provide the list of agencies and copies of reports and gist of main findings/ recommendations.

Mr. Bakshi (Retired IFS) of an NGO, New Delhi, evaluated/monitored in 2004-05.

Brief Findings: The project should be continued as it has helped in creating awareness among local community towards their responsibilities in management and protecting the forest resources.

Frequency of Monitoring and evaluation? N.A.

Number of such activities carried out in each F.Y.? N.A.

Table 2.17: Year-wise Monitoring and Evaluation by Independent Agencies

Year-1	Year-2	Year-3	Total
Nil	N.A.	N.A.	Nil

GRAZING ANIMALS IN VILLAGE SILAWALI



UNCONTROLLED GRAZING IS A SERIOUS THREAT TO AFFORESTATION

CHAPTER III

FDA MECHANISM

The FDA Mechanism along with its strength and weakness and other details have been discussed in this chapter.

- **Outline the constitution of FDA, i.e., composition of general and executive bodies, along with deviation, if any, reasons therefore, and concurrence of MOEF thereto.**

FDA Agra was registered under Societies Registration Act of 1860 (XXI) on November 2, 2000 at district head quarter, Agra. Guidelines prescribed by NAEB/MOEF, Government of India were followed during the composition of general body and executive body meetings of the FDA. According to information from officials and observations made, no deviation was found in the composition of general and executive bodies.

- **Highlight the strengths and weakness, if any, pertaining to mutual responsibilities assigned to FDA.**

Strengths: Good network of forest officials in the field. Majority of the forest area in the division belongs to Reserve Forest (RF) category and hence forest officials have to keep ready and tight vigil in protecting the forest resources from any kind of damage. There is an extreme enthusiasm among the villagers to make the success of afforestation scheme. There is a coordination among forest officials and villagers, which is a great achievement.

Weakness: Climate is harsh and dry, plant growth is slow, rainfall is meager, ground water level has gone down, soil is infertile, neelgai are constant danger for saplings. Constant protection of plants for longer period is required.

- **Comment on whether the project implementing VFCs/EDCs are also being benefited through any other forestry/community development project from state/central government.**

JFMC which are involved in the project implementation are being benefited through the Uttar Pradesh Village Forests Joint Management Rules 2002. The FDA is also taking initiative in proposing to grow medicinal herbs and plants in project area of forest as well as agricultural fields for that micro plans are being prepared by the JFMC.

- Provide the brief outline of FDA bank account, its mode of operation, auditing status supported with progress of work as envisaged in the guidelines. Comment on the flow of funds to the VFCs/EDCs. Distribution of funds by JFMCs for work executed. If delayed, reasons thereof?

Flow of fund from FDA to JFMC has been quite smooth. It is felt hat there is a need to expedite flow of fund from the NAEB to the FDA. The Bank account of the FDA was with Union Bank of India, Agra branch and the account number was 16035 operated by the Chairman (CF) and Member Secretary/CEO (DCF). Audit report of three years (2003-04, 2004-05, 2005-06) was submitted to the concerned departments.

- Similar details should also be provided for the individual VFC/EDC whose work were assessed and interactions held with. Details of statement of account and progress report sent by VFC/EDC to the FDA. Comment on the receipt of funds by VFCs/EDCs.

Five JFMCs were physically surveyed and verified, namely, Bateshwar, Balai, Parna, Silawli and Sonikhera. Their bank accounts were opened in IDBI and UBI. Expenditure in VFCs is quite good. Receipt of JFMC through FDA has been also quite satisfactory.

CHAPTER IV

QUALITATIVE ANALYSIS AND FINDINGS

In this Chapter quantitative analysis and findings are made, like assessment of plantation, survival rate, increase and availability of fuel wood, fodder, NTFPs, timber, etc. Also about participation, protection and maintenance of assets created, maintenance of assets created, maintenance of records, benefits accrued to the community etc.

C.1 ASSESSMENT OF PLANTATIONS, SMC WORKS AND THEIR OUTPUT

1. Brief Comment on suitability of areas selected for project implementation:

The entire afforestation work was carried out on forest land, which was extremely deforested due to heavy dependence of villagers and the entire land is eroded and converted into ravines. Blank patches of the forest was treated in this project. Since ground is dry the growth of plants is slow but steady and wherever plants have come up they have formed a substantial greenery and moisture has increased.

2. Assessment of work as seen in the field including quality of work:

The quality of plantation was good in both artificial regeneration and natural regeneration as observed in the field.

3. Survival rate (estimated statistically, indicating the methodology adopted and average height of plants) :

While surveying in the field it was found that the survival rate was extremely good. Average survival rate of plants of the consecutive three years was about 91 per cent. In first year of implementation (2003-04) the survival rate was 75 per cent and in third year (2005-06) it was 95 per cent. The survival rate was assessed in a sample area of about 1 hectare in a surveyed JFMC at the plantation site. The average height of the plant was found (depending upon type of species and moisture) between 2 to 7 feet.

4. Assessment of regeneration/rehabilitation status of degraded lands treated:

On degraded lands in the reserve forests the sheesham, neem and acacia were naturally regenerated and rehabilitated. The growth and rehabilitation was found satisfactory.

- 5. Technology used in the project: Technology or Methodology adopted under each of the components sanctioned by NAEB. An analysis of the technology used and its effectiveness in brief.**

Staggered contour trenches of size 3.00 m x 0.60 m x 0.45 m spread 3 m apart in a row are dug. Sowing of seeds of trees of local importance are done in two rows at a distance of 15 cm apart on the ridges at the lower side of the contour trenches. In pits plants are grown in poly-bag. The forest officials and the villagers were satisfied with the methods of plantation.

- 6. Increase in availability of biomass (fuel wood, fodder, NTFPs, Small Timber, etc.)**

As the project is only two to three years old, the results are yet awaited. Biomass is in the process of growth. Fodder grass is available in plenty in plantation areas, which is being used by the villagers to feed the animals.

- 7. Improvement in quality of life of people in project area (status of health and education, availability of dinking water, increase in per capita income).**

Quality of life of people in project area has improved by providing them employment during drought and lean period and EPA work. During 2003-04 to 2006-07 total 351,762 mandays were generated.

C.2. PEOPLE'S PARTICIPATION

- 1. Whether the choice of species has been decided in consultation with the local people. Also please comment briefly whether these are in consonance with the local needs.**

Each micro-plan has been prepared through peoples' participation and they have decided with the help of local forester the species to be planted. In course of selection of plants species, the soil, moisture and climatic conditions were taken into account along with the local needs of population. Growth potential of individual species was also a factor of selection of species.

- 2. Briefly comment on the suitability of species taken up for NTFP and medicinal plants (perennials) from economic point of view.**

Important NTFP species having medicinal value have been planted in consonance with the local needs.

3. Whether the project has created awareness among the local population about the responsibilities they expected to discharge and the benefits that are likely to accrue from the project.

Yes, tremendous interest has been created among the local people regarding the protection, management and distribution of usufruct among them.

4. Approach adopted by the project authorities for motivating the people?

FDA motivated the public through PRA and regular meetings. Also JFMC/VFC which are jointly formed by forest officials and locals are extremely enthusiastic to make the afforestation programme a success. Successful implementation of EPA is another attraction for the entire villagers who are fully motivated.

5. Whether the means of communication adopted have been successful and have there been a favourable response?

The PRA adopted has been quite successful which created enthusiasm and dedication among people towards afforestation and its protection.

6. Whether the village communities have been involved in:

(a) Project planning	Yes
(b) Project implementation	Yes
(c) Usufructs sharing mechanism	Yes
(d) Are the people aware of GO issued if any with regard to IFM, Usufructs sharing mechanism?	Yes
(e) Has any formal arrangement been evolved for sharing the intermediate and final produce of the project activities?	Yes
(f) Evaluation and comments on effectiveness of mechanism Involved and the equitableness of the same?	Yes
(g) What role has been played by the local community/committee in arriving at the mechanism?	

They have also contributed their opinions, were well taken.

C.3 ASSETS: PROTECTION AND MAINTENANCE

What measures have been used for protecting the assets created in the project? State the quality and quantity of measures adopted and their effectiveness. The evaluator may state whether in spite of measures the plantations are subjected to grazing or other biotic

damages. Whether these issues were placed before the Village Forest Committee? If so, with what results? If Not, why? Whether the VFC has been effective in sorting out these issues?

Temporary watchmen are appointed to protect the plants and to stop unregulated grazing. Forest officials and VFC members have expressed concern regarding the meager salary and wages recommended by the government. Due to less payment of salary and wages than the desired, watchmen are not seriously taking the job. However, forest officials and VFC members are serious in protecting the assets. It is high time to raise the amount of salary and wages so that watchmen and other workers may do their duty seriously.

C.4 MAINTENANCE OF RECORDS

- (a) Whether record of nurseries indicating the number and species of seedlings raised has been maintained?

Yes, the records of nurseries were maintained.

- (b) Whether these are adequate and posted from time to time. If not, the reasons for not posting of these records and the effect of unposted records on the implementation of the project?

Yes.

- (c) Whether plantation journals have been maintained and posted up-to-date. Whether a surveyed sketch of the plantation has been posted on the register?

Yes

- (d) Whether inspecting officials of the implementing department like DFO, CF or CCF have recorded their observations/comments, if any?

Yes

- (e) Whether record/register of VFC/VDA General Body and Executive Body meetings maintained?

Yes

C.5 PROJECT BENEFITS

- Comment on whether implementing authorities have quantified the tangible and intangible benefits, which the regenerated areas would be able to offer to the local people? Or else, a suitable and appropriate system to forecast, evaluate and monitor such benefits is being developed. If not, then reason thereof.

Tangible benefits from the project are being calculated. Local community has been made aware of the intangible benefits like soil and moisture conservation, conservation of biodiversity.

2. Provide a brief outline of the employment generated (mandays) by the project activities, especially afforestation, SMC works and entry point activities in each VFC/EDC. Also comment on the extent of such benefits having gone directly to the local women/SCs/ STs?

The employment generated is about 351,762 mandays. Benefits gone to local SC/ST women are about 10.00 per cent.

Table 4.1: Mandays Generated in the Project

Sl. No.	Year of Expenditure	Mandays Generated
1.	2003-04	85,028
2.	2004-05	96,241
3.	2005-06	108,569
4.	2006-07	61,924
Total		351,762

Source: Based on field observation and FDA records.

C.6 PROJECT REPORTING ACTIVITIES

- (a) What returns (reports) have been submitted by the implementing agency to the State/ Central Government? Whether these reports were sent regularly on due dates? If not, the reasons therefore?

Progress and audit reports are being submitted to the Central Government and State Government at stipulated time intervals.

- (b) Whether any State level agency has monitored project activities? If so, the outcome of such monitoring/evaluations and comments, if any?

No

- (c) If no agency evaluated project activities, reasons therefore.

The name of the agency is being selected.

No state agency could be deputed.

CHAPTER V

CONSTRAINTS AND LIMITATIONS OF PROJECT

- (a) **What constraints/limitations were faced by the project authorities, if any.**

Protection of newly growing plants is a major problem. Government approved wages are less to hire forest guards.

- (b) **Whether the fund flow was smooth and without delays?**

Yes

- (c) **If flow was not smooth, where did the delay arise?**

This must be checked with records.

Fund flow was smooth.

- (d) **Whether project authorities made adequate efforts to get the funds released in time?**

Yes

CHAPTER VI

SUGGESTIONS AND RECOMMENDATIONS

C.8.1 SUGGESTIONS FROM IMPLEMENTING AGENCY

- (a) **Whether there is any scope for improving the project output?**

Yes, project period should be of 10 years and extra provision of funds should be made.

- (b) **Whether the project authorities have felt any need for improving upon any particular activity or methodology?**

Yes. Provision should be made for watchmen to guard the plantation for longer period.

- (c) **Whether the people of the area feel any need to improve any particular aspect of the project?**

More adjoining land of afforested area should be brought under forest regeneration scheme and EPA should be further extended in villages.

C.8.2 FROM THE EVALUATION AGENCY/CONSULTANTS

- (a) **Whether the project should be continued/modified/discontinued (give reasons)?**

Yes, the project should be continued as it has helped in creating awareness among local community for their responsibilities in managing and protecting forest resources and hope for future benefits from healthy forests.

- (b) **Any other relevant recommendation(s) :**

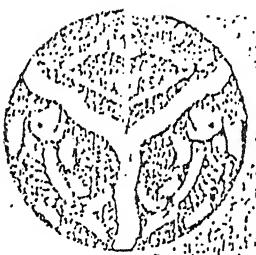
It would be wise if we involve religious institutions in plantation, management and protection of forests, for continued involvement of communities. Religion is a power of common people, it should be diverted towards positive activities, then there would be competition among communities to make their forests healthy. Temples, Dharmshalas, Pathshalas, Mats, Gurudwara, Mosques, Dargah, Khanqah (Math), Madrasa, Church, etc. are the established respected and trusted traditional NGOs, with which every Indian is linked, they should be entrusted the plantation and maintenance of their neighbouring forest lands. Surely there would be tremendous growth of forests with little money and manpower, as every thing of forest would be taken by the communities religiously.

- (c) Names and designation of functionaries (DCF, CF, CCF) with whom evaluator has interacted post-evaluation appraisal – summary of discussions with the officers to be given.

Discussion was held with Mr. S.P. Yadava, DFO and Mr. H.L. Yadava, S.D.O. (Fatehabad), Agra and other staff of Forest Department, who briefed the evaluator regarding the salient features of the project and methodology adopted for implementation of afforestation programme. Main emphasis of local staff was on creating awareness and trust building among local people in which they were truly successful.

1971-1976

प्राविष्टि नं०-५३ - १८/४१६ दिनांक २-१-२०८८



कृष्ण-रजिस्ट्रीकरण
का
प्रमाण-पत्र

(आधिनियम संख्या 21,1860 के अधीन)

174 Jan 2000 8001 11

प्राप्तिकरण प्राप्तिकरण किया जाता है कि एकान्तरिक विवरण

ରୁପିତି ରାମର କାହିନୀ ଅଛାନ୍ତିର ନିଦର୍ଶନ ହୋଇଥାଏ -

“को आगे उत्तर प्रदेश में अपनी प्रवृत्ति के गंवंध परं पथारंशोभित योराइटीज रजिस्ट्रेशन अधिनियम, १९६० के द्वारा लापक रूप से लिखित रूप से। यह प्राप्त-पत्र

ပုဂ္ဂန်မြတ်ပုဒ်၊ ပုဂ္ဂန်မြတ်ပုဒ်

आग मिठाक - ५७ नावलपुर उन्नीसामा दोहुल्लार की

१०. निम्न छात्रावार में [विद्या गत्या]

रामोद्दीप रामोद्दीप के रंगिलार,

महाराष्ट्र विद्यालय अधिकारी ने इसका प्रतीक्षा किया।

କେବଳ ପରିମାଣରେ ଏହା କାହାର କାମକାଣ୍ଡରେ ଥିଲା ନାହିଁ । ଯାହାର କାମକାଣ୍ଡରେ ଏହା ଥିଲା ତାଙ୍କର କାମକାଣ୍ଡରେ ଏହା ଥିଲା ।

४५ देखांडोंड वक्षाधिभारी
क्षेत्राचा। इ उप लूभाय, आयसा